

<b>Brookhaven National Laboratory</b> <b>National Synchrotron Light Source</b>		<b>Number:</b> LS-PPS-0036	<b>Revision:</b> A
		<b>Effective:</b> 10/28/03	<b>Page 1 of 2</b>
<b>Subject: U6 Laser Interlock Test</b>			
<b>Prepared/</b> M. Buckley <b>Approved By:</b>	<b>Approved By:</b> L. Carr		

\*Original Document contains approved signatures.

Test Date:	<a href="#">Revision/Periodic Review Log</a>
Test Reason:	Test Result: <input type="checkbox"/> Passed <input type="checkbox"/> Failed
Tester 1:	Assistant 1:
Tester 2:	Assistant 2:

Pre-testing Requirements:

- Turn off the Laser Power supply prior to commencing test procedure. \_\_\_\_\_
- Search the hutch area and assure no one other than test personnel is present. \_\_\_\_\_
- Assure interlock cable is connected to the remote shutter control panel. \_\_\_\_\_

1. Enter the U6 hutch and assure all three doors are closed. Press the Reset button located on the Interlock Panel above the laser system to clear any faults and to obtain an "Interlocked" status. Use the main exit door for steps 1-5.

The enable light on the interlock panel comes ON. \_\_\_\_\_

The "Interlocked" light on the outside of the hutch comes ON \_\_\_\_\_

The Door light on the interlock panel remains ON. \_\_\_\_\_

Press the internal bypass button at the exit door.

The internal Bypass LED comes ON \_\_\_\_\_

The Bypass LED on the interlock panel comes ON. \_\_\_\_\_

Exit the hutch and close the hutch door.

The external Bypass LED turns ON \_\_\_\_\_

The "Interlocked" light on the outside of the hutch remains ON \_\_\_\_\_

The enable light remains ON \_\_\_\_\_

The Door light on the interlock panel remains ON. \_\_\_\_\_

2. Press the external bypass button, enter the hutch, and close the door

The enable light remains ON \_\_\_\_\_

The "Interlocked" light on the outside of the hutch remains ON \_\_\_\_\_

The Bypass LED on the interlock panel comes ON. \_\_\_\_\_

The Door light on the interlock panel remains ON. \_\_\_\_\_

3. Press the internal bypass button and begin timing. Open the hutch door, leave door open, & wait.

The internal bypass LED goes out in not more than 15 seconds \_\_\_\_\_

The Bypass LED on the interlock panel goes Off. \_\_\_\_\_

The enable light turns OFF \_\_\_\_\_

The "Interlocked" sign goes OFF \_\_\_\_\_

The Door light on the interlock panel goes Off. \_\_\_\_\_

U6 Laser Interlock Test			
<b>Number:</b>	LS-PPS-0036	<b>Revision:</b>	A
<b>Effective:</b>	10/28/03	<b>Page 2 of 2</b>	

4. Close the door and Press the internal bypass button.

The "Interlocked" sign does not turn ON

The "Enable" light does not turn ON.

5. Complete step 5 when the laser shutter is operated locally and then operated remotely. Switch the laser shutter control mode to the appropriate local/remote position.

Local	Remote
-------	--------

Press the Enable Reset button and Open the shutter.

Laser shutter opens.

Closed Indicator goes Off (Remote only)

NA

Close the shutter

Laser shutter closes.

Closed Indicator come ON (Remote only)

NA

Open the shutter

Press the internal bypass button, exit the hutch, & close the door, Note: This action must be completed within the time period indicated in step 3.

The enable light remains ON

The "Interlocked" light on the outside of the hutch remains ON

Shutter remains Open.

Press the external bypass button, enter the hutch, & close the door.

The enable light remains ON

The "Interlocked" light on the outside of the hutch remains ON

The Shutter remains Open.

Open the hutch door

The enable light turns Off

The "Interlocked" light on the outside of the hutch turns Off

The Shutter Closes

Attempt to Open the shutter

The shutter does not Open

6. Interlock the hutch and open the shutter locally.  
Test the interlock switches on the hutch auxiliary doors.  
Open an auxiliary door.

Auxiliary Door	
1	2

The enable light turns Off

The shutter closes.

The "Interlocked" light on the outside of the hutch turns Off

The door light turns Off

Close the door, press the reset button, and repeat for the remaining door.

\* \* \*